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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,431	03/25/2004	Paul J. Ruthven	02734.0495-02000	6967

22852 7590 11/02/2005

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EXAMINER
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HUG, ERIC J

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/808,431	Applicant(s) RUTHVEN ET AL.	
	Examiner Eric Hug	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-68, 104-111, 113 and 114 is/are pending in the application.
- 4a) Of the above claim(s) 104-111 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-68, 113 and 114 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                                   |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

***Election/Restrictions***

Applicant's election with traverse of claims 1-68, 113, and 114 in the reply filed on August 29, 2005 is acknowledged. The traversal is on the grounds that the subject matter of the claims within Groups I and II overlaps to such an extent that examination of both groups of claims would not present a serious burden on the Examiner. The examiner agrees that the search required for the subject matter of Group I would inevitably overlap at least partially with the search required for the subject matter of Group II. However, that overlap is considered to be marginal in view of the large number of embossing/perforating systems in the prior art and the perhaps even larger number of perforated webs (paper or otherwise) obtained by systems not comprising two embossing rolls. A search of both inventions involves predominately different subject matter, and thus a serious burden would exist on the Examiner.

The requirement is still deemed proper and is therefore made FINAL.

***Specification***

The disclosure is objected to because of the following:

The specification contains embedded figures (Graphs 1-3). Each must be a separate drawing having its own figure number and be described in the Brief Description of the Drawings. Applicant is referred to parent application 10/036,770.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 7-9, 15, 26, 27, 30-32, 38, 48, 52, 55-57, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hepford et al (US 3,940,529) in view of Schutte et al (US Re.27,453).

Hepford discloses a system for joining and perforate embossing a two-ply web utilizing two embossing rolls having perforating embossing elements (knuckles) which can be arranged in the cross-machine direction, i.e. at 90° to the machine direction. See in particular column 4, lines 19-35 which explains how the web is perforated when the two plies are joined together. The rises on one ply are situated between the rises of the other ply and bonding is by mechanically joining the slopes between the trough and the top of the rises. This mechanical junction results in local sheet perforation. The embossing elements depicted are oval, beveled, and in half-step alignment, and having a sidewall angle less than 20°. See Figures 3 and 4 for the shape, arrangement, and engagement of embossing elements. The embossing elements of the embossing rolls are disclosed in the example of column 5, line 56, as having a height of .021 inches (21 mils), set to interfere with each other to a depth of .015 inches (15 mils).

Schutte is incorporated by reference into Hepford (see column 4, lines 35-38 of Hepford). Hepford relies in part on Schutte to show that the perforating embossing elements can be

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arranged in the cross-machine direction. Schutte discloses an embossed absorbent paper towel formed by passing a fibrous web between two embossing rolls having embossing elements. The rolls are designed to compress portions of the surface of the web and also to stretch the web between the compressed areas beyond the elastic limit of the fibers, thereby separating the fibers and increasing the web porosity in the stretched areas. As a result, apertures appear (column 3, lines 53-70). Schutte clearly shows in the figures that at least 50% of the embossing elements are oriented in the cross-machine direction. Thus, the embossing elements of Schutte comprise perforate nips arranged in the cross-machine direction (CD), and it would be obvious to one skilled in the art that at least some of the embossing elements of Hepford can be arranged in the cross-machine direction. Figure 3 of Hepford shows all the embossing elements oriented in one direction, thus it also would be obvious to arrange all the embossing elements in the cross-machine direction.

Claims 5, 6, 10-14, 16-25, 28, 29, 33-37, 39-47, 49-51, 53, 54, 58-62, 64-68, 113, and 114 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hepford et al (US 3,940,529) in view of Schutte et al (US Re.27,453) as applied to claims 1, 26, and 48 above, and if necessary further in view Bauernfeind (US 4,759,967).

Hepford discloses a system for joining and perforate embossing a two-ply web utilizing two embossing rolls having perforating embossing elements (knuckles) which can be arranged in the cross-machine direction as suggested by Schutte. Neither Hepford nor Schutte discloses all of the claimed shapes, heights, sidewall angles, and engagement lengths of the embossing elements.

Bauernfeind discloses embossed tissue products having elongated embossments oriented in the cross-machine direction (CD) of the sheet. The embossing device comprises two rolls having mating embossments. Bauernfeind teaches that it is desirable to have substantially all of the embossing elements oriented in the CD of the sheet. Suitable elongated embossing shapes given by Bauernfeind include ovals, rectangles, diamonds, polygons, or any other suitable shapes. Figure 3 shows the embossments in full-step alignment. Embossing element dimensions are given in the examples (starting at column 3, line 55), some of which reads on the claimed depths and engagement lengths.

Thus, Bauernfeind teaches element shape, alignment, and engagement for two embossing rolls having CD oriented embossing elements. It is therefore considered that the claimed shapes and dimensions of the embossing elements, if not expressly disclosed by the above references, are obvious modifications thereof one skilled in the art would recognize as depending on the nature of the web being embossed. For example, Schutte teaches in column 3, lines 53-57, that the clearance of the embossing elements must exceed the thickness of the base stock.

The claimed shapes are also unpatentable in view of *In re Dailey*, 149 USPQ 47 (CCPA 1976), where it held that change in form or shape is an obvious engineering design.

Claim 113 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hepford et al (US 3,940,529) in view of Schutte et al (US Re.27,453) as applied to claims 1, 26, and 48 above, and further in view of Bredenick et al (US 5,458,950). With regards to two portions of embossing elements having different heights of at least 15 mils, this feature is taught expressly by Bredenick, who discloses webs having light and heavy embossing perforations. The

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embossing is performed using two embossing rolls having perforate embossing elements of two different heights. The use of two types of embossments provides for a balance between web strength and web absorbency. At the time of the invention it would have been obvious to one skilled in the art to modify Hepford to provide two types of perforate embossments for the same reasons.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 571 272-1192. The examiner can normally be reached on Monday through Friday, 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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